

**MINUTES**  
**OF**  
**THE UTAH RADIATION CONTROL BOARD**

**October 5, 2007**

**Department of Environmental Quality, DEQ Building #2**

**Conference Room 101**

**168 N 1950 W**

**Salt Lake City, Utah 84114-4850**

**BOARD MEMBERS PRESENT**

Kent J. Bradford, P.G., Chair  
Stephen T. Nelson, Ph.D., Vice Chair  
Dane L. Finerfrock, Executive Secretary  
Scott Bird  
Patrick D. Cone  
Frank D. DeRosso, MSPH, C.I.H.  
Christian K. Gardner  
Elizabeth Goryunova, M.S.  
Joette E. Langianese, Commissioner  
Richard W. Sprott, DEQ Executive Director  
John W. Thomson, M.D.

**PUBLIC**

Steve Erickson, Citizens Education Project  
Julie Felice, IUC  
Dave Frydenlund, Denison Mines (USA)  
Corporation  
Ted Hartwell, CEMP  
Bruce Hurley, CEMP  
Charles Judd, Cedar Mountain Env.  
Karen Langley, University of Utah  
Tye Rogers, Energy*Solutions*  
Kevin J. Rohrer, U.S. EPA  
Christopher Thomas, HEAL-Utah

**BOARD MEMBERS ABSENT/EXCUSED**

Peter A. Jenkins, M.S., CHP  
Joseph K. Miner, M.D., MSPH  
Gregory G. Oman, D.D.S., B.S.

**DRC STAFF/OTHER DEQ**  
**MEMBERSPRESENT**

Gwyn Galloway, DRC Staff  
Philip Griffin, DRC Staff  
John Hultquist, Section Manager  
Craig Jones, Section Manager  
Laura Lockhart, Attorney Gen's Ofc  
Loren Morton, Section Manager  
Yoli V. Necochea, DRC Staff  
Donna Spangler, DEQ Policy and Planning

## **GREETINGS/MEETING CALLED TO ORDER**

The Utah Radiation Control Board convened in the Department of Environmental Quality (DEQ) Conference Room 101; 168 North 1950 West; DEQ Building 2; Salt Lake City, Utah. Kent Bradford, Chair, called the meeting to order at 2:10 p.m. Chairman Bradford welcomed the Board Members and the public. He indicated that if the public wished to address any items on the agenda, they should sign the public sign-in sheet. Those desiring to comment would be given an opportunity to address their concerns during the public comment period.

## **I. APPROVAL OF MINUTES (Board Action Item)**

### **a. Approval of the September 7, 2007 Board Minutes**

Kent Bradford, Chair, asked the Board for corrections to the minutes from September 7, 2007. There were no corrections to the minutes.

**MOTION MADE BY JOHN THOMSON TO APPROVE THE MINUTES OF SEPTEMBER 7, 2007.**

**MOTION WAS SECONDED BY RICHARD W. SPROTT.**

**MOTION CARRIED AND PASSED UNANIMOUSLY**

## **II. RULES (Board Action Items)**

### **a. Final Rulemaking: R313-19-100, Transportation**

Gwyn Galloway, DRC Staff, said on August 3, 2007, the Board asked staff to file the proposed changes to R313-19-100 for a thirty day public comment period. The changes to R313-19-100 were made to ensure compatibility with the U.S. Nuclear Regulatory Commission (NRC) requirements as set forth in 10 CFR 71.

The thirty day public comment period ended on October 1, 2007. No comments regarding the proposed rules have been received. The U.S. Nuclear Regulatory Commission have no comments regarding the rulemaking. The NRC will send written confirmation indicating that there were no comments from their agency.

### **RECOMMENDATION:**

The Executive Secretary recommends that the Board grant approval to submit the rule for final rulemaking with an effective date of October 8, 2007.

**MOTION MADE BY ELIZABETH GORYUNOVA TO GRANT APPROVAL TO SUBMIT THE RULE FOR FINAL RULEMAKING WITH AN EFFECTIVE DATE OF OCTOBER 8, 2007.**

**MOTION WAS SECONDED BY FRANK D. DeROSSO.**

**MOTION CARRIED AND PASSED UNANIMOUSLY**

**b. Final Rulemaking: R313-15, “Standards for Protection Against Radiation” and R313-22, “Specific Licenses”**

Philip Griffin, DRC Staff, said on August 3, 2007, the Board approved the proposed change to the Utah Radiation Control Rules, and instruct staff to send the Rules out for a 30-day public comment period. The proposed rule changes appeared in the Utah State Bulletin on September 1, 2007. The public comment period opened on September 1, 2007, and closed on October 1, 2007. A copy of the proposed rule changes were also sent to the U.S. Nuclear Regulatory Commission for review. No comments on the proposed rules changes were received during the public comment period.

**RECOMMENDATION:**

The Executive Secretary recommends that the Board approve the proposed changes to the Utah Radiation Control Rules for final rule making. The changes to the Rules will have an effective date of October 19, 2007.

**MOTION MADE BY SCOTT BIRD THAT THE BOARD APPROVE THE PROPOSED CHANGES TO THIS RULE FOR FINAL RULE MAKING AND MAKE THE EFFECTIVE DATE OCTOBER 19, 2007.**

**MOTION WAS SECONDED BY JOHN THOMSON.**

**MOTION CARRIED AND PASSED UNANIMOUSLY**

**c. Five Year Reauthorization of R305-2, “Electronic Meetings,” and R305-3 “Emergency Meetings”**

Laura Lockhart, Attorney Generals Office, informed the Board that R305-2 and R305-3 were up for five-year reauthorization. This means that they have to be reapproved by the Board.

Laura said R305-2, “Electronic Meetings,” is required by the Open Public Meetings Act in order to include individuals by telephone. She requested that the Board also approve a non-substantive change updating the statutory reference Section 52-4-7.8 to the new provision which would be to Section 52-4-207.

**RECOMMENDATION:**

The Executive Secretary recommended the Board approve adopting and continuing R305-2 and approve the non-substantive change to the new statutory reference of Section 52-4-207.

**MOTION MADE BY ELIZABETH GORYUNOVA TO ADOPT RULE R305-2 AND TO APPROVE THE NON-SUBSTANTIVE CHANGE.**

**MOTION WAS SECONDED BY PATRICK CONE.**

**MOTION CARRIED AND PASSED UNANIMOUSLY**

**Five Year Reauthorization of R305-3, “Emergency Meetings”**

Laura Lockhart, Attorney General’s Office, explained that the Open and Public Meeting’s Act allows emergency meetings, if urgent circumstances need addressing and normal notice requirements cannot be met. She asked the Board to reauthorize R305-3 and for the Board approve changes and updates to statutory citations

**RECOMMENDATION:**

The Executive Secretary recommended the Board approve the reauthorization of R305-3 and the Board approve the non-substantive updates and statutory citations.

**Questions/Comments by the Board:**

Richard Sprott, asked if other departments have anything in their rules regarding posting it on the website as soon as practicable. Laura Lockhart responded that she believed the Department of Commerce did. She said she could have an answer for the Board at the next meeting.

**MOTION MADE BY FRANK DeROSSO TO REAUTHORIZE R305-3 AND TO APPROVE THIS RULE FOR THE NON-SUBSTANTIVE CHANGES AND UPDATES.**

**MOTION WAS SECONDED BY ELIZABETH GORYUNOVA.**

**MOTION CARRIED AND PASSED UNANIMOUSLY**

**d. Discussion of a Proposed Rule, R313-12-111, “Submission of Electronic Copies”**

Laura Lockhart, Attorney General’s Office, said she prepared the proposed rule for the submission of electronic copies. She said it would make DRC’s database more available to the public.

**Discussion by the Board:**

The following issues were discussed by the Board Members and Laura Lockhart:

- (1) Whether paper documents should be submitted.
- (2) The exception of license applications greater than 25 pages. The rule does not apply to x-ray registration.

Dane Finerfrock, Executive Secretary, explained that the email system will not accept anything greater than one mega bite. The IT staff said that one mega bite was between 20 or 30 pages. He said one mega bite is the threshold that the Division can accept.

- (3) It is difficult for the Division to digitize items larger than 8.5 x 11 (drawings and maps).
- (4) The format for submission has to be a .pdf or a word document.
- (5) Whether these documents would be indexed by name, title and company so they could be found.

It was agreed that the Division would notify the public of R313-12-111 by publishing a public notice in the local newspapers and also by sending notification by mail to all licensees.

Kent Bradford, Chair, asked the Board to entertain a motion regarding this proposed rule.

**MOTION MADE BY ELIZABETH GORYUNOVA TO ADOPT ELECTRONIC SUBMISSION AND SEND R313-12-111 OUT FOR PUBLIC COMMENT.**

**MOTION WAS SECONDED BY STEPHEN T. NELSON.**

**MOTION CARRIED AND PASSED UNANIMOUSLY**

**III. RADIOACTIVE MATERIALS LICENSING/INSPECTION**

**No Items**

**IV. X-RAY REGISTRATION/INSPECTION**

**No Items**

**V. RADIOACTIVE WASTE DISPOSAL**

**No Items**

## **VI. URANIUM MILL LICENSING AND INSPECTION**

### **a. Briefing: Recent Board Activities Related to the Definition of “Ore”**

Laura Lockhart, Attorney Generals Office, said ore is defined as byproduct material by the Department of Energy (DOE). The DOE is legally obligated to provide perpetual care for byproduct material. We are relying on the DOE to provide perpetual care, and we do not require financial assurance for byproduct material. It is important that any “byproduct material” meet DOE’s definition.

Laura Lockhart went over a chronology of the Board’s activities related to ore. She said the Division of Radiation Control recognized that it could not make fundamental changes to the definition of “byproduct material.” In addition, the Division can only adopt laws more stringent than federal law after a public hearing and after presenting evidence that federal regulations are not adequate to protect public health and the environment.

She summarized NRC’s proceedings. She said there was, surprisingly, very little about alternative feed-material. She said it was mostly about groundwater and the acceptability of specific waste. She said Brent Bradford stated he sensed the Board was feeling defensive about what material would meet DOE’s requirements for alternative feed.

Kent Bradford, Chairman, thanked Laura Lockhart.

#### **Comments by the Board:**

The Board discussed Laura Lockhart’s briefing on the “Definition of Ore.” Patrick Cone said he appreciated Laura Lockhart revisiting the issue and he felt it was a difficult issue.

Stephen Nelson, Vice Chair, said Ms. Lockhart pointed out that there could be consequences, if the Board revisited and changed the definition of ore. He said Ms. Lockhart also pointed out that “we signed-up for the system we currently have.”

### **b. Request to Address the Board by Christopher Thomas, HEAL-Utah: Regulation of Alternate Feed Materials Processing at Uranium Mills**

Christopher Thomas, Policy Director for HEAL Utah, said Colorado has addressed this issue by defining ore in guidance documents. Colorado defined ore to be naturally-occurring, uranium-bearing material prior to chemical processing. The NRC has a different position and Utah has adopted it.

In 1995, the NRC said it would evaluate the economic value of a mill,

before approving alternative feed streams. The State of Utah applied this reasoning to the White Mesa Mill. Utah demonstrated that the value of the uranium (\$68,000 to \$600,000) was small compared to the \$4,000,000 disposal fee. Eventually, the NRC ruled against Utah's reasoning--the economics of the exchange would not be the subject of review. Mr. Thomas said he wanted to point out that "economic value" was guidance originally suggested by NRC.

He said in 2002 the EPA looked at alternative feed programs, and the EPA suggested that "alternate feed" might be an entirely new process not evaluated by the team's economist. The EPA suggested that NEPA (National Economic Protection Agency) should complete an economic review. A review has not been completed.

Colorado has implemented a statute. The statute requires a written statement from EPA that any new material processed at a facility will not adversely affect EPA's receipt of title to that facility.

Mr. Thomas said Utah is an Agreement State like Colorado, and Utah can take steps to be more stringent than the NRC. He said that Laura Lockhart spoke a little bit to this issue. He said he was interested in her statement that: "we would have to make a finding that the standards in place are insufficient to protect human health and the environment."

#### **Questions/Comments by the Board:**

The Board discussed Christopher Thomas' presentation on the issue of ore. Laura Lockhart said Colorado's approach to defining ore was different, because it was accomplished through guidance.

Patrick Cone said he would like to have more information and additional discussion on guidance versus statute.

Richard Sprott said he would like to investigate further whether the NRC has been consistent in the treatment of Colorado vs. the treatment of Utah.

Kent Bradford asked Dane Finerfrock to have DRC's staff look into the findings of Christopher Thomas and report back to the Board.

#### **Public Comments:**

David Frydenlund, Vice President for Denison Mines-(USA) Corporation, said that the White Mesa Mill is the only operating uranium mill in the United States. He said they are currently operating alternate feed material. He said they have 115 employees at the Blanding mill. He said they were also mining uranium. He said they have about 100 miners working in the area of San Juan County, as well as 50 contractors. He said that next year they anticipate increasing the number of employees to 135.

He said it is clear that there is not a need to clarify the definition of ore. It was decided by the NRC. The definition has been accepted by the State of Utah, and he said Laura Lockhart has read the definition of ore to the Board. He said the Atomic Energy Act (AEA) has interpreted ore very broadly, because they want to make sure that all tailings from uranium milling are classified as 11.e(2) byproduct material. As a result, the tailings are regulated and are ultimately transferred to DOE. He said there was never anything regarding economics in the Atomic Energy Act.

He said the White Mesa Mill recovers from its alternate feed program approximately 1.7 million pounds of uranium in the form of U-238. He said the uranium would generate as much energy as 12,250,000 tons of coal. If you loaded up the coal in a train, it would extend from Salt Lake City, Utah to Chicago, Illinois. The energy produced from the uranium that we recover in alternate feed would otherwise be lost to direct disposal. This uranium could generate all of the electricity for the State of Utah for one year or for Salt Lake City for two years.

It is the equivalent of 12 million tons of coal. The coal would generate approximately 24 million tons of carbon dioxide. By that calculation, it would be the same amount of CO<sub>2</sub> produced by 4 million passenger cars in one year--or three percent of all the passenger cars in the United States.

He said it is important to understand that Colorado has a different program than Utah. In addition, Colorado's definition of ore does not say that non-conventional ore cannot be processed with alternative feed material. Colorado goes a bit further than Utah. Colorado contemplates direct disposal of waste in facilities such as uranium mills.

Mr. Frydenlund said they were extremely proud of their mining operation, and they have recycled valuable energy-resources through alternate feed.

**Questions by the Board:**

Kent Bradford, chair, asked if Colorado was only accepting mining operations that have direct facility disposal?

David Frydenlund said Colorado was in standby status, and he was not sure about the degree of readiness.

Stephen Nelson, Vice Chair, said that he appreciated Mr. Frydenlund's comments. He said the White Mesa Mill has made efforts to comply with the law. He said it was operating for the best interest of its owners and stockholders. He said he did not want his comments to be misconstrued.



**Public Comments:**

Steve Ericksen, Citizens Education Project, said Colorado has created a different definition of ore, because they are in competition with the mill in Utah. He said he agreed with Mr. Thomas' statement that the time to reexamine the definition of ore is now. He thanked the NNSA for addressing and explaining the spikes that were noted during the summer. He said Mr. Andre has made some rather interesting recommendations which he hoped that the Board would look into. He said there needed to be some way to notify people without having a panic.

He said the EMP system needed to be upgraded, and the EMP system was currently being looked at by Members of Congress. He said he would like the Board to look at ways to avoid the situation that occurred during the Milford Flat Fires.

**Comment:**

Kevin Rohrer, U.S. NNSA, said in the future when they release information, they will provide a courtesy copy to the DRC, and make sure local people and authorities in Utah are aware of it. He said they would like to continue building a relationship with Utah.

**VII. OTHER DIVISION ISSUES**

**a. Introduction of Scott Bird, Uranium Milling Representative on the Board**

Kent Bradford, Chairman, asked the new DRC Board Member, Scott Bird to introduce himself to the Board.

Scott Bird said that he had grown up in the Salt Lake area. He said he attended the University of Utah, and earned a degree in Metallurgical Engineering. He said he took a lot of business classes at the University. He said he grew up in West Valley City, and worked construction with his dad in a roofing and siding company. He worked at Kennecott for 30 years. He worked for 21 years in milling. He was involved in the design, construction, start-up and operation of the mill. He said his roots were from Southern Utah--Wayne County and Salina. He said he had grandfathers that worked in the uranium mills and that were prospectors looking for uranium.

**b. Presentation: Radiation Measurements from the Community Environmental Monitoring Program (CEMP) Network Station in Milford, Utah During the Milford Flats Fires**

Kent Bradford, Chairman, said a group of gentleman from the U.S.

Department of Energy-National Nuclear Security Administration (NNSA), and the Desert Research Institute would discuss radiation measurements from the CEMP.

Kevin Rohrer introduced himself to the Board. Kevin said he was from the Office of Public Affairs, U.S. Department of Energy, National Nuclear Security Administration, at the Nevada Test Site. He said he would explain the background radiation and the conclusions from the radiation monitoring results presumably from the Milford fires. We will explain what we know now.

Kevin Rohrer, handed out three hand outs and went over his presentation:

- (1) Nevada Test Site Overview and Community Monitoring Activities
- (2) Analysis of Gamma Readings at the Milford CEMP Station during the Milford Flats Fire
- (3) Nevada Test Site – Environmental Report Summary 2006, September 2007

Kevin Rohrer said that they had a very high degree of confidence that the abnormal readings measured by the pressurized ion chamber at Milford was the result of equipment malfunction and not because of an increase in naturally occurring radionuclides or re-suspension of “legacy fallout” from the Nevada Test Site. Analysis of air filters from the period of the Milford Flats Fire show results that are consistent with normal background activity. The timing of the PIC readings indicates there is no cause to link the anomalous readings with the Milford Flats Fire. The high positive and the both of the negative readings are not consistent with PIC behavior. The diagnostic of the PIC showed warping of the SIMM socket and on the data acquisition board.

He said the analytical results of the air samples from the Milford CEMP station are available on the CEMP web site: <http://www.cemp.dri.edu>. He encouraged the Board and members of the public to contact them, if they had further interest in the program or would like to find out about DRI’s management of the program. He provided the following contact information:

Bruce Hurley, NNSA Program Manager for CEMP, (701) 295-1284,  
[Hurley@nv.doe.gov](mailto:Hurley@nv.doe.gov)

Kevin Rohrer, NNSA Office of Public Affairs, (701) 295-0197,  
[Rohrer@nv.doe.gov](mailto:Rohrer@nv.doe.gov)

Ted Hartwell, DRI Program Manager for CEMP, (701) 295-1284,  
[Hurley@nv.doe.gov](mailto:Hurley@nv.doe.gov)

Ted Hartwell, DRI, asked if there were any questions by the Board Members or by members of the public.

**Questions by the Board:**

The following questions and answers followed:

- (1) What was the temperature reading on July 9, 2007?  
Response: On July 5, 2007 when the first initiation occurred it was 100 degrees at Milford.
- (2) What were the temperature readings on some of the other sites?  
Response: South of St. George it registered 118 degrees, and we had no problems. One area routinely reaches 110 plus degrees, and they have no problems.
- (3) Have they ever had problems with warping?  
Response: No. The lab said it seems like it could have heated slightly wrong. Heat could of been a factor, but it is slightly wrapped for whatever reason.
- (4) Do volunteers have access to the chamber, or is it sealed?  
Response: It is sealed. It is a pressurized, basketball-size chamber. Because there is pressurized, argon gas inside, and we do not want anyone getting into that.
- (5) Has it ever been vandalized?  
Response: There is no evidence of vandalism. We do have that occasionally, but not in this case.

**VIII. PUBLIC COMMENT**

Comments were made in section VI.b. of this document by Christopher Thomas, HEAL-Utah; David Frydenlund, Dennison Mines; and Steve Erickson, Citizens Education Project.

**IX. OTHER ISSUES**

**No Items**

**X. Next Scheduled Board Meeting:**

**November 2, 2007; the Grand Center; 182 N 500 W; Moab, UT; 10:00 A.M.**

A discussion followed. It was agreed by the Board Members that the meeting will be held at 10:00 a.m. in Moab, Utah.

**THE BOARD MEETING ADJOURNED AT 4:28 P.M.**